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This research attempted to extend educational prediction for community college students by including nontraditional (nonintellective) predictors and criteria. Predictors included the Washington Pre-College (WPC) Battery, the Comparative Guidance Placement (CGP) Battery, and high school grade point averages (GPA). Criteria included students' first-year-college GPA and a community college survey relating to students' educational plans and experiences. The students came from a group of 687 who entered three Washington State community colleges in fall 1967 after completing the CCP and WPC batteries; 44% were females and the mean age was 18. First-year-college GPA's were collected for 631 students, and 354 students completed the survey. Interest measures from the CGP battery were combined with high school GPA's and aptitude scores (WPC) to predict first-year-college GPA's and responses to the survey. Findings included traditional aptitude and achievement measures predicted academic performance as accurately for 2-year as for 4-year college students; performance in vocational and academic courses could be predicted by the same measures; nonintellective criteria appeared to be unrelated to intellectual criteria and predictors; and nonintellective criteria could be predicted where there was an obvious link between the criteria and the predictors. The unpredictability of college experiences was attributed to the lack of appropriate predictors rather than unreliability of the items (MB)

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Bureau of Testing

University of Washington
March 1969

Prediction of Multiple Aspects to the Community College Experience Clifford E. Lunneborg, Patricia W. Lunneborg,

and Renny Greenmun

Nonintellective and intellective predictors and criteria, including the new CEEB Comparative Guidance and Placement (CGP) battery, were studied among 687 community college students. While college grades were highly predictable from high school grades and intellective tests, nonintellective criteria were independent of this intellective criterion and many were unpredictable. Where such educational and vocational plans and experiences were predictable, it was primarily due to the 12 nonintellective, CGP interest measures ranging from Physical Science to Home Economics.

The aim of this study was to extend educational prediction for community college students by encompassing nontraditional predictors and nontraditional criteria. Traditionally predictors have been limited to aptitude/achievement measures, high school grades and test scores, and criteria to grades assigned in college. Recent research has demonstrated, however, not only that there are college criteria independent of grades, but that such criteria are predictable especially from variables themselves nonintellective. As pointed out in Richards et al. (1967), though, these efforts have concentrated either upon students of superior scholastic aptitude or on a broad range of talent. Perhaps that student group which stands to gain the most from this nontraditional approach is the growing number entering community colleges where educational

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goals are more comprehensive and diverse, and where necessarily a lower than average range of student potential is represented.

This investigation was facilitated by a shared interest of the Washington Pre-College (WPC) Testing Program and the College Entrance Examination Board (CEEB) in the latter's new Comparative Guidance and Placement (CGP) battery. This experimental battery included a variety of interest measures, important to extending nonintellective predictor variance.

Method

Subjects. The community college students studied came from a group of 687 who entered three Washington State community colleges fall 1967 after completing both the CGP Core Battery and the WPC Battery. (The colleges were Centralia, Clark, and Lower Columbia.) In the middle of spring quarter 1968 this sample was requested to complete a community college survey (Lunneborg, 1968). The 354 students who returned the mail survey constituted the sample for studying prediction of nonintellective college criteria. In addition, first year all-college GPA's were obtained from the colleges for 631 of the original sample which had a mean age of 18 and contained 44 percent females.

Predictors. The WPC Battery consisted of twelve measures: Vocabulary, English Usage, Spelling, Reading Speed, Reading Comprehension, Data Sufficiency, Quantitative Judgment, Functional Relationships, Applied Mathematics, Mathematics Achievement, Spatial Ability, and Mechanical Reasoning. Administration time for these tests is $5\frac{1}{2}$ hours. In addition, high school (HS) grade point averages (GPA's) in English, Foreign Language, Mathematics, Natural Science, Social Science, and Electives were available as these are computed regularly by the WPC Program from high school grade transcripts.



The CGP Core Battery consisted of eight intellective measures—Reading, Vocabulary, Sentences, Spelling, Mathematics, Spatial Reasoning, Mechanical Ability, and Perceptual Efficiency—and twelve interest (I) indices—Biology, English, Fine Arts, Mathematics, Social Science, Secretarial, Physical Science, Foreign Language, Music, Engineering Technology, Home Ecc Lics, & d Business. The biographical items in the core battery have not been studied. Two additional scores, CGP Verbal Ability and CGP English, synthesized from other CGP subtests, were also not included in this analysis.

Criteria. The sole intellective criterion was first-year cumulative GPA. The Community College Survey provided the nonintellective criteria based on seventy items concentrating primarily on educational and vocational plans and community college experiences. A copy of the survey appears as Appendix A. Since responses to many survey items were of a categorical form, e.g., college major (8 nominal choices), it was sometimes necessary to generate separate criterion variables for response categories and sometimes necessary to combine response categories. A total of 146 criterion variables was thus defined for correlation with the various predictors.

Procedure. The criteria of first year cumulative GPA and the survey variables were correlated with the twelve WPC tests, six high school GPA's, and twenty CGP test scores. For each of the 146 criterion variables, three sequential predictor selection analyses (Horst and Smith, 1950) were conducted. The three sets of predictors consisted of (1) the six HS GPA's and twelve WPC test scores, (2) the six HS GPA's and 20 CGP test scores, and (3) the HS GPA's, WPC test scores, and CGP test scores. In each analysis predictors were selected until the shrunken multiple correlation dropped, indicating no additional reliable variance to be attained by selection of more predictors.

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Results

For the initial sample of 687 students Table 1 presents intercorrelations of HS GPA's and WFC test scores, and Table 2 the intercorrelations of HS GPA's and CGP test scores. Table 3 contains the means, standard deviations, and intercorrelations between CGP and WFC subtests. One anomalous feature of CGP results is the unusually large standard deviations for these tests compared to national norms for public comprehensive community colleges (CEEB, 1968). Since the subjects showed no unusual tendencies on any WFC test compared to established norms, and inasmuch as the sex ratio for the national sample and the present one was the same, the large standard deviation differences on the CGP tests are difficult to explain. They may be related to known differences typifying Far West junior colleges such as being less academic, larger, and newer (Richards, Rand, & Rand, 1965).

In order to conserve space, Table 4 gives only the validity coefficients for those criteria for which the square of the shrunken multiple correlation (R_c^2) attained a value of .10 or greater for the sequential predictor selection run with both test batteries combined. R_c^2 represents the proportion of variance in the criterion for which the selected variables might be expected to account in a new sample, and contrasts with R which would equal approximately .35 when R_c^2 = .10. Table 5 identifies the 47 criteria numbered in Table 4 and summarizes the results of the predictor selection analyses for these selected criteria. Wherever predictor selections are reported in Table 5 the associated multiple correlation was always significant at the .05 level. The order of predictor selection is not reported. Variables with a larger percent variance predicted tended to be earlier selected.

Table 1

Intercorrelations of WPC Scores and High School GPA's

(Decimal points omitted)

English Usage (EU) ä ജ # S 다 名 \$

તાં ઇ な 免 ജ ജ な S S

Spelling (SP)

Reading Comprehension (RC) ×. හි 公 な 다 오

Mechanical Reasoning (MR) U U 古 す જ્વ 完 ઇ

Spatial Ability (SA)

g

Reading Speed (RS)

Vocabulary (VO)

오

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Functional Relationships (FR) ij සූ ଷ୍ଠ හ

Math Achievement (MA) な # %

Foreign Language GPA 14.

Mathematics GPA 15.

Natural Science GPA 16.

Social Science GPA 17.

Electives GPA 18.

H. EC.

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8

122

Bus.

Table 2

Intercorrelations of High School GPA's and CGP Core Battery Scores (Decimal points omitted)

55 59 68

68 57

2

Mathematics Mech. Abil. GPA N. Sci. GPA L. GPA Spat. Reas Vocabulary F. Arts I |-i P. Sci. I Eff. Sentences Math, GPA Spelling Music I က် Soc. S. For. L Reading Secre. Elect. Math. Engl. Biol. Soc. Per. For. 21. မွ် о О 16. 17. 18. 19. 15. 13. 14. 11. ខ្ម 12. ထံ 9 ં ķ ณ๋ 56 15 56 8 ജ 35 13 **₹**0 -03 11 0 8 01 90 -03 9 75 -05 0 8 -07 -30 80 12 8 38 -07 口 -5 -12 Q Q 0 口 25 g -03 90 -07 જ g 43 જ્ හි -07 -07 31 -04 90-15 80 60 8 03 7 -07 Я 07 8 디 90 248 37 -15 12 37 -05 17 90 25 8 \mathcal{S}_{2} 80 23 8 8 8 ପ୍ଷ -03 හි 57 8 92 020 0 о О 2 00 5 **-**19 다. Ci Ci 91-8 -13 07 -03 -03 07 ଥ 80 05 な H 07 40 01 83 S -03 임 07 56 -07 32 8 40 †0 39 80 さ З 18 38 89 03 07 01 05 90 8 03 17 口 80 70 40 ଧ 52 ପ୍ଷ ឧ 36 01 9 02 8 90 40 ชู 18 2 15 36 유 さ 3 32 32 8 92 8 17 05 8 8 70 5 -07 74 47 07 07 17 22 5 35 8 口 †9 8 82 8 34 4 2 38 82 38 33 5 37 9 SIS 34 8 22 31 8 ∞ 35 36 25 27 32 5 52 55 74 61 9 62 な 5

Table 3

Means, Standard Deviations and Intercorrelations of CGP and WPC Scores (Decimal points omitted)

WPC tests

						MFC	cests						CGP	CGP
CGP tests	图	SP	22	Æ	SA	AM	RS	ΛO	SC	QJ	FF	MA	MEANS	SD'S
Reading	51	20	13	21	8)	34	90	50	35	36	27	36	52.68	11.63
Vocabulary	20	38	26	13	19	හු	22	69	27	27	23	31	52.70	12,13
Sentences	63	#	742	†0	54	31	11	52	27	31	ส	31	53.54	11.56
Spelling	64	26	36	-03	15	62	16	† †	19	ପ୍ଷ	19	22	51.06	11.87
Mathematics	35	は	33	53	33	15	13	33	39	54	39	59	50.38	15.40
Spat. Reas.	12	†0 -	17	947	39	58	90	80	23	23	23	37	51.88	14.52
Mech. Abil.	-01	-10	†o	37	78	Ħ	1 0	80	11	18	11	ਨ	48.75	15.94
Per. Eff.	27	25	† Γ	01	8	7	90	ପ୍ଷ	1 7	17	18	เร	48.72	16.45
Biol. I	90	03	05	T	ή0	05	90	20	02	6	20	12	16.53	8.35
Engl. I	† ₹	54	25	80-	03	ή0	60	33	ή0	02	60	01	15.41	8.01
F. Arts I	15	9	90	60-	Ħ	-05	8	13	<u>-</u> 07	<u>-07</u>	-05	+ 0-	16.20	8.45
Math. I	99	- 05	20	32	31	4.5	03	03	30	147	34	杰	14.97	9.85
Soc. S. I	60	90	61	90-	90-	40	60	22	8	† 0	† 0	05	18.36	8.77
Secre. I	8	Ħ	-15	-30	-10	80	90-	-29	-13	-16	-05 -05	-16	17.09	8.42
P. Sci. I	90	-05	16	37	19	25	90	17	22	30	18	35	16.86	9.37
For. L. I	31	27	23	-15	₹0	ή0	05	58	03	05	90	90	18.04	9.84
Music I	19	10	15	- 0	60	-01	03	16	- 07	-01	-01	8	15.46	8.9 ^t
Engin. I	-11	-17	8	다	1 5	14	ή0	† 0-	12	8	10	22	17.22	9.39
H. Ec. I	14	17	8	-37	20	-13	-03	- 02	- 18	- 18	το-	-19	18.08	9.03
Bus. I	60	-02	60-	60-	40	05	-03	-15	†0 -	-01	05	00	18.31	7.55
Means	33.75	14.13	84.6	8.71	10.27			42.05	6.08	12.00	4.52	12.67		
SD'S	15.10	8.40	5.89	9.30	4.65	1:.98		17.02	3.30	5.68		9.43		

Validity Coefficients for Selected Survey Criterion Variables

Table

(Decimal points omitte

For. L. GPA

N. Sci. GP/ Soc. S. GP/

Math. GPA

Elect. GPA

locabulary

Reading

Sentences Spelling Mathematic Spat. Reas

Mech. Abil

Biology

Soc. S.I Secre. I

For. L

Math I

Validity Coefficients for Selected Survey Criterion Variables

> N. Sci. GPA Soc. S. GPA Elect. GPA

GPA

Engl.

For. L. G

Math. GPA

Mathematics

Vocabulary

Reading

Sentences

Spelling

Spat. Reas. Mech. Abil.

Per, Eff.

Biology I

F. Arts

Math. I

Engl, I

Soc. S.

Secre.

9

Predictor Selection Results for the 47 Predictable Criteria (N = 354)

Criterion 1.

Survey 1. How far do you plan to go in college?

- (0) some college courses but no degree
- (1) business or specialized job training in addition to college courses but no degree
- (2) associate degree from community college
- (3) R.N., teaching, or other professional diploma but no bachelor's degree
- (4) bachelor's degree
- (5) college work after bachelor's but not another degree
- (6) master's degree
- (7) law degree, doctor's degree, Ph.D., Ed.D., M.D., etc.

Three Predictor Selections

WPC (.14)		CGP (.	.27)		WPC + C	GP (.2	7)
Predictor	β	%s ²	Predictor	β	%5 ²	Predictor	β	%S ²
SP MR RS VO For. L. GPA Soc. S. GPA Elect. GPA	10 .13 .09 .17 17 .38 19	-0.3 2.2 1.2 4.2 0.2 7.7 0.9	For. L. GPA Soc. S. GPA Soc. S. GPA Elect. GPA Reading Vocabulary Sentences Mathematics Per. Eff. Engl. I Math. I P. Sci. I Music I H. Ec. I	13 .35 17 .14 .08 28 .12 .08 .21 10 .11 .14 27	0.1 7.0 0.7 3.1 2.0 -1.4 2.4 0.7 5.6 -0.2 2.7 1.8 5.6	For. L. GPA Soc. S. GPA Elect. GPA Reading Vocabulary Sentences Mathematics Per. Eff. Engl. I Math. I P. Sci. I Music I	.07 14 .34 16 .16 .06 28 .12 .08 .21 09 .11	1.0 0.2 7.0 0.7 3.5 1.4 -1.3 0.7 5.2 2.6 1.8
						H. Ec. I	27	5.6

Note.-- R_c^2 reported in parenthesis at head of each column of predictor selections. Standard partial regression weights (β) and percent criterion variance predicted ($\beta S^2 = \beta_x r_{xy}$) are reported for each variable selected.

0.4

-.08

Bus. I

Criterion 2.

Survey 3-0. Major Area of Study in College

0 = Non-Business
1 = Business

WPC			CGP (.19)		WPC + CGP (.20)			
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β	%s ²	
R _c ² <	.10		Elect. GPA Reading Vocabulary Sentences Spelling Mech. Abil.	11 16 .19 23 .08	1.9 3.3 -2.4 4.9 -0.7 0.3	MR VO QJ FR MA Elect. GPA	.10 .12 09 .15 10	-0.0 -1.7 1.2 0.5 1.3	
			Soc. S. I Secre. I P. Sci. I H. Ec. I	11 .14 17 15	0.8 3.1 2.2 0.6 7.3	Reading Sentences Spelling Mech. Abil.	14 17 .11 .10	2.9 3.6 -0.9 0.3	
			Bus. I	•29	(•)	Soc. S. I Secre. I P. Sci. I H. Ec. I Bus. I	10 .14 18 15 .30	0.7 3.0 2.3 0.6 7.5	

Criterion 3.

Survey 3-1. Major Area of Study in College

0 = Non-Education
1 = Education

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CGP + WPC (.17)CGP (.10) WPC (.10) %s² %s² %s² Predictor Predictor β β Predictor Engl. GPA -.20 1.2 1.4 EU .15 -.19 4.1 MR Math. GPA -.10 2.1 -.16 1.2 MR-0.4 .14 SA -0.4 .14 SA 0.3 .09 RS -.12 0.9 Reading 0.4 .11 RS VO -.15 1.6 .16 0.6 Sentences -.19 2.0 VO .19 -1.2 QЈ Mathematics 4.2 -.20 .20 -1.3 QJ -.08 1.0 FR -.18 **3.0** Mech. Abil. -.10 1.7 MA-.18 MA 3.2 0.6 Per. Eff. .17 1.8 .20 Engl. GPA 2.6 .28 Engl. GPA -0.3 -.10 Secre. I -.19 1.5 Math. GPA -.21 1.6 Math. GPA .08 H. Ec. I 1.3 0.8 Soc. S. GPA .13 Elect. GPA -.09 0.2 .28 1.0 Sentences 0.4 -.12 Spelling 4.7 Mathematics **-.**23 **3.**2 Mech. Abil. 0.6 .16 Per. Eff. For. L. I 0.6 .06

Criterion 4.

Survey 3-2. Major Area of Study in College

0 = Non-Engineering

1 = Engineering

WPC (WPC (.11)			. 29)		WPC + CG	P (.30	
Predictor	β	%S ²	Predictor	β	%S ²	Predictor	β	%s ²
EU MR AM RS DS MA Soc. S. GPA	13 .23 .09 .08 12 .18	0.7 6.4 1.3 0.5 -0.7 3.4	Engl. GPA Vocabulary Mathematics Spat. Reas. Mech. Abil. Per. Eff. Biol. I	.11 23 .18 .13 .42 34	-0.4 0.8 4.2 3.7 12.9 1.6 0.3	RC RS DS Engl. GPA Vocabulary Mathematics Spat. Reas.	.10 .07 12 .12 27 .19	0.4 0.5 -0.7 -0.5 1.0 4.4 4.3
Elect. GPA	.12	0.6	Math. I Soc. S. I For. L. I Engin. I Bus. I	.08 12 .14 .16 09	1.9 1.7 -0.9 4.9 0.4	Mech. Abil. Per. Eff. Biol. I Math. I Soc. S. I Secre. I For. L. I Engin. I	.42 33 11 .09 16 07 .14 .13	12.9 1.6 0.3 2.1 2.3 0.9 -0.9 4.1

Criterion 5.

Survey 3-3. Major Area of Study in College

0 = Non-Humanities

ERIC Aruthar Provided by ERIC 1 = Humanities (Language, Fine Arts, Philosophy)

WPC	;		CGP (.20)		WPC + CG	P (.21)	
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%S ²
$R_c^2 <$.10		Elect. GPA	.13	1.4	AM	10	1.4
· ·			Sentences Mathematics Mech. Abil.	.18 20 11	2.3 3.1 1.7	RS N. Sci. GPA Elect. GPA	09 .11 .09	0.7 1.2 1.0
			Engl. I F. Arts I Math. I	.13 .08 17	3.9 1.6 4.1	Sentences Mathematics Mech. Abil.	.17 18 11	2.3 2.8 1.7
			Soc. S. I Music I H. Ec. I	.13 .13 15	2.6 3.0 -1.4	Engl. I F. Arts I Math. I Soc. S. I Music I	.14 .07 15 .12	4.2 1.4 3.6 2.4 3.1
						H. Ec. T	17	-1.6

Criterion 6.

Survey 3-4. Major Area of Study in College

0 = Non-Vocational-Technical

1 = Vocational or Technical Specialty, Job Training

WPC	;		CGP (.10)		WPC + CGP (.12)			
Predictor	β	%S ²	Predictor	β	%S ²	Predictor	β	%S ²	
$R_c^2 <$.10		Engl. GPA Elect. GPA	-•33 •19	7.3 -0.1	EU FR MA	.13 16 .14	-0.8 1.6 0.3	
			Mathematics Per. Eff.	••09	0.3	Engl. GPA Elect. GPA	42 .21	9.4	
			Soc. S. I Music	11 09	1.9 1.1	Mathematics Per. Eff.	.08 -,10	0.2 1.1	
						F. Arts I Soc. S. I Music I H. Ec. I	07 11 12 .12	0.9 1.9 1.5	

Criterion 7.

Survey 3-5. Major Area of Study in College

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0 = Non-Social Science
1 = Social Science (History, Government, Psychology)

WPC	C		CGP (.10)		WPC + CG	P (.10))
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β	%s ²
$R_c^2 <$	-	·	Math. GPA Soc. S. GPA Elect. GPA	10 .25 14	0.6 2.2 1.2	Math. GPA Soc. S. GPA Elect. GPA	10 .25 14	0.6 2.2 1.2
			Biol. I Engl. I Soc. S. I For. L. I H. Ec. I	12 .22 .09 13 08	1.3 4.7 1.6 0.2 0.5	Biol. I Engl. I Soc. S. I For. L. I H. Ec. I	12 .22 .09 13 08	1.3 4.7 1.6 0.2 0.5

Criterion 8,

Survey 3-6. Major Area of Study in College

O = Other than Natural Science or Math

1 = Natural Science or Math

WPC (.11)		CGP (.19)		WPC + CGP (.22)				
Predictor	β	%s ²	Predictor	β	%5 ²	Predictor	β	%s ²		
SA RS DS MA	13 .10 .13 .25	-1.1 1.5 3.2 7.1	Vocabulary Spelling Mathematics Biol. I	.16 08 .18 .17	3.2 -0.8 5.5 4.8 0.7	EU SA RS DS Mathematics	.12 15 .07 .14	2.5 -1.3 1.1 3.6 5.3		
For. L. GPA N. Sci. GPA	11	-0.9 2.9	Engl. I F. Arts I Math. I P. Sci. I Music I Engin. I Bus. I	07 .14 .14 .11 11	0.4 4.0 4.3 0.8 -1.2 0.1	Mech. Abil. Per. Eff. Biol. I Engl. I F. Arts I Math. I Music I Bus. I	.15 12 .22 11 06 .14 .14 07	2.9 -0.9 6.0 0.6 0.3 3.8 0.9		

Criterion 9.

Survey 5-0. Best Description of College Studies over Past Year

0 = General, Business or Academic

1 = Vocational-Technical

WPC			CGP (.19)		WPC + CGF	, (°5T)	
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β	%S ²
$R_c^2 <$.10		Engl. GPA For. L. GPA	23 .21	5.0 -1.7	SP FR	.13 10	-0,9 0.6
			Mech. Abil. Per, Eff.	.41 42	5•7 7•4	Engl. GPA For. L. GPA	26 .20	5.4 -1.6
			Biol. I Engl. I	08 .13	0.8 -1.5	Mech. Abil Per. Eff.	.42 43	5•9 7•5
			Math. I Soc. S. I Music I	.12 19 17	1.4 3.5 2.7	Biol. I Engl. I Math. I	13 .13 .12	1.2 -1.5 1.4
			H. Ec. I	.15	-1.4	Soc. S. I P. Sci. I	21 .11	3.9 0.7
						Music I H. Ec. I	19 .17	3.1 -1.6

Criterion 10.

Survey 5-2. Best Description of College Studies over Past Year

O = Vocational-Technical, General, or Academic

1 = Business

WPC	;		CGP (.16)		WPC + CGP (.17)			
Predictor	β	%s ²	Predictor	β	%S ²	Predictor	β	%s ²	
$R_c^2 <$.10		Elect, GPA	07	0.7	EU	08	1.2	
C			Reading Spelling Mathematics Spat. Reas.	18 07 .11	5.6 0.8 -0.5 -0.4	RC RS VO MA	.15 .06 15	-1.3 0.2 3.3 -0.5	
			Biol. I	06	0.8	Elect. GPA	07	0.7	
			F. Arts I Secre. I	08 .21	0.6 6.3	Reading Spat. Reas.	16 .10	3.2 -0.4	
			P. Sci. I Bus. I	15 .17	2.2 4.1	Biol. I F. Arts I	05 06	0.6 0.5	
						Secre. I P. Sci. I	.21 16	6.2 2.5	
						Bus. I	.15	3.9	

Criterion 11.

Survey 5-3. Best Description of College Studies over Past Year

O = Vocational-Technical, General or Business

1 = Academic

ERIC

WPC (.14)		CGP (.23)		WPC + CGP (.24)			
Predictor	β	%s ²	Predictor	β	%S ²	Predictor	β	%s ²	
SP MR RS VO QJ FR MA Sca. S. GPA Elect. GPA	17 10 .09 .20 .08 10 .13 ,27 08	-1.5 -0.3 1.3 5.5 1.7 -0.9 2.7 8.2 -0.8	Soc. S. GPA Reading Vocabulary Mech. Abil. Biol. I Engl. I Soc. S. I Secre. I Music I Engin. I	.15 .12 .09 08 .16 13 .21 23 .14 09	4.4 3.8 -0.2 3.8 -1.8 5.8 2.3 -1.8	SP RS QJ Soc. S. GPA Reading Vocabulary Mech. Abil. Biol. I Engl. I Soc. S. I Secre. I Music I Engin. I	12 .09 .10 .14 .11 .11 10 .16 13 .20 20 .15	-1.0 1.3 2.1 4.3 3.1 -0.2 3.8 5.2 2.3 0.5	

Criterion 12.

Survey 6-A. Are you now enrolled in college?

0 = No
1 = Yes

WPC (.:	10)		CG	₽		WPC + CG	P (.12)
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²
am DS QJ FR	.19 .17 13	2.4 2.7 -0.7 0.6	R _c ² <	.10		AM RS DS QJ	.21 .06 .16	2.7 0.4 2.4 -0.7
For. L. GPA Elect. GPA	34 .11	6.6 0.0				For. L. GPA Elect. GPA	33 .11	6.3 0.0
						Reading Sentences Spelling Spat. Reas.	.16 13 09 .12	1.6 0.4 0.5 2.0
						F. Arts I Engin. I	.09 12	0.2 -0.5

Criterion 13.

Survey 9. Do you plan to complete an occupational or vocational training program?

0 = No
1 = Yes

WPC (.14)		CGP (.21)		WPC + CG	P (.22	•	
Predictor	s %s ²	Predictor	β	%S ²	Predictor	β	%s ²	
MR VO		N. Sci. GPA Soc. S. GPA Elect. GPA	11 33 .09	2.7 11.2 -1.0	SA RS N. Sci. GPA	12 .08	1.3 -0.1 2.9	
Soc S. GPA Elect. GPA	43 14.7 13 -1.4	Reading Vocabulary	.16 34	-2.5 9.1	Soc. S. GPA Elect. GPA	34 .12		
		Spelling Mathematics Mech. Abil. Per. Eff.	.14 .09 02 15	-1.3 -0.7 0.3 2.5	Reading Vocabulary Spelling Mathematics	.20 38 .13	-3.1 10.1 -1.2 -0.8	
		Math. I Soc. S. I	.16 06	1.2	Mech. Abil. Per. Eff.	04 12	0.5 2 ₀ 0	
		P. Sci. I For. L. I H. Ec. I Bus. I	09 .08 .15 09	0.9 -0.2 1.7 -0.1	Math. I Soc. S. I For. L. I H. Ec. I	.15 09 .08 .16	1,2 1,5 -0,2 1.7	
					Bus. I	10	-0.2	

Criterion 14.

Survey 10-B. Have you decided to transfer to another college after this school year?

0 = Yes, but decision made before this year

1 = Yes, and decision made during this year at community college

WPC (.17)		CGP (.28) WPC + CGP (.3			• • •			
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β	%s ²	
EU SP FR	28 .26 16	4.4 1.8 3.1	For. L. GPA Soc. S. GPA Reading	•35 ••34 ••24	3.4 6.4 5.6	MR RS FR	.10 12 18	-0.2 1.3 3.4	
For L. GPA Soc. S. GPA	•39 - •35	3.8 6.8	Sentences Spelling Per. Eff.	31 .58 10	4.9 7.7 0.9	For L. GPA Soc. S. GPA Reading	•39 ••31 ••24	3.8 5.9 5.7	
			For L. I	17	2.7	Sentences Spelling Per. Eff.	32 .61 09	5.1 8.2 0.7	
						For L. I	16	2.6	

Criterion 15.

Survey 12. How much have you applied yourself and worked at your studies this past year?

0 = Haven't applied myself at all

1 = Put forth a minimum of effort

2 = Studied fairly hard

3 = Studied very hard

WPO	2		CGP (.11)		WPC + CG	P (.11	_
Predictor	β	%s ²	Predictor	β	%S ²	Predictor	β	%s ²
R _c ² <	10		Engl. GPA Math. GPA N. Sci. GPA Elect. GPA	.11 15 .11	2.1 -1.2 2.1 1.8	SP MR AM N. Sci. GPA	.07 08 12	0.9 0.4 -0.1 2.3
			Spelling Spat. Reas. Per. Eff.	09 07	1.3 0.4 0.2	Elect. GPA Spelling Per. Eff.	.09	1.8 1.0 0.2
			Engl. I F. Arts I Soc. S. I P. Sci I	09 08 .24 .11	-0.4 0.5 5.5 1.6	Engl. I F. Arts I Soc. S. I P. Sci. I	08 10 .23	-0.3 0.6 5.4 1.8

Criterion 16.

- Survey 14-2. Which one most applies to your present community college?
 - O = (A) great pressure for high grades (B) little school spirit (C) not much to do except study (D) athletics overemphasized (E) students treated like numbers in book (F) faculty not as good as they should be (G) students not very bright (H) expressing ideals in action discouraged (I) childish rules and
 - 1 = no chance for individuality

regulations

WPC			CG:	P		WPC + CGP (.10)		
Predictor	β	%S ²	Predictor	β	%5 ²	Predictor	β	%s ²
$R_c^2 <$	· ·	•	$R_c^2 <$.10		vo	14	1.1
c			C			Math. GPA	14	0.7
						Sentences Mech. Abil. Per. Eff.	.13 35 .27	0.9 5.7 2.1
						F. Arts I Math. I	.08 .12	1.1

Criterion 17.

- Survey 14-5. Which one most applies to your present community college?
 - O = (A) great pressure for high grades (B) little school spirit
 (C) no chance for individuality (D) not much to do except
 study (E) athletics overemphasized (F) faculty not as good
 as they should be (G) students not very bright (H) expressing
 ideals in action discouraged (I) childish rules and regulations
 - 1 = students treated like numbers in book

WPC	;		CGP			WPC + CGP (.10)			
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β″	%s ²	
$R_c^2 <$		·	R_c^2 <	.10		AM RS MA	.23 .06 27	2.9 0.6 0.4	
						Math. GPA	.1.3	0.9	
						Spat. Reas. Per. Eff.	14 .09	0.9 0.4	
						Engl. I Soc. S. I For. L. I H. Ec. I	10 .13 09 21	1.1 0.4 1.2 3.8	

Criterion 18.

- Survey 14-8. Which one most applies to your present community college?
 - O = (A) great pressure for high grades (B) little school spirit
 (C) no chance for individuality (D) not much to do except study
 (E) athletics overemphasized (F) students treated like numbers
 in book (G) faculty not as good as they should be (H) students
 not very bright (I) childish rules and regulations
 - 1 = expressing ideals in action discouraged

WPC			CGP (_° 13)		WPC + CG	P (.14)	
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²
R_c^2 <	.10		For. L. GPA Math. GPA Elect. GPA	10 .17 12	1.6 -0.3 1.4	MR Engl. GPA For. L. GPA	13 .14 13	0.4 -0.9 2.0
			Sentences Mech. Abil. Per. Eff.	.09 .25 43	-0.4 -0.4 10.8	Math. GPA Elect. GPA	.12 16	-0.2 1.9
			Engl. I Soc. S. I For. L. I H. Ec. I	.10 12 11	-0.0 1.0 1.2 1.1	Vocabulary Sentences Spat. Reas. Mech. Abil. Per. Eff.	19 .17 .12 .28 46	2.3 -0.9 0.2 -0.5 11.6
						For. L. I H. Ec. I	10 .17	1.0 0.9

Criterion 19.

- Survey 16-8. Which is the best description of the college where you have decided to transfer?
 - O = (A) large enrollment and varied curriculum (B) inexpensive to attend (C) privately or religiously controlled (D) emphasizes transferring and continuing one's education (E) emphasizes a liberal arts education (F) open-door admissions and impersonal atmosphere (G) older school with traditions and residential student body (H) many students in technical programs (I) not going to transfer or undecided
 - l = even balance of male and female students

WPG	C		CGI	•		WPC + CGI	? (.14))
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²
R _c ² <			R _c ² <	.10		SP RC AM RS VO DS	.13 .28 .23 15 32 22	-1.3 -0.4 0.2 1.9 4.7 2.5
						N. Sci. GPA	-,18	3.0
						Reading Spelling Mathematics Mech. Abil,	.16 22 10 .13	-0.5 3,8 0.8 1,1
						Engl. I F. Arts I P. Sci. I	.12 11 .09	0°9 0°3 0° ₁ +

Criterion 20.

Survey 17. If you had been absolutely free to choose where you went this past year, would you have picked the community college you are attending?

0 = No

l = Yes

WPG	WPC		CGP (.11)		WPC + CG	P (.13)	? (.13)	
Predictor	β	%s ²	Predictor	β	%5 ²	Predictor	β	%s ²	
$R_c^2 <$.10		N. Sci. CPA	.26	1.3	SA	21	4.7	
			Soc. S. GPA Mathematics Spat. Reas. Mech. Abil.	17 07 12	0.9 0.7 1.3 1.6	For. L. GPA N. Sci. GPA Soc. S. GPA	.11 .22 20	0,1 1.1 1.0	
			Per. Eff.	29	3.6	Mech. Abil. Per. Eff.	.34 31	1.5 3.9	
			Engl. I Soc. S. I Secre. I Engin. I	11 .11 .09 21	1.0 0.3 0.6 2.6	Biol, I Engl, I Secre, I Engin, I	.08 05 .09 20	0.3 0.5 0.5 2.5	

Criterion 21.

Survey 23-A. How are you currently employed? Give the one answer which fits you best.

0 = unemployed

- 1 = (A) part time work of type I will probably do all my life
 (B) part time work which will probably not be my career field
- 2 = (A) full time at job I expect to be my long run career field
 (B) full time work which will probably not be my life's work

WP	c ·		CGP (.10)	_	WPC + CG	PC + CGP (.16)		
Predictor	β	%s ²	Predictor	β	%5 ²	Predictor	β	%s ²	
$R_c^2 <$.10		Soc. S. GPA Elect. GPA	11 .16	0.9 0.9	EU SP	•33 11	-1.5 1.3	
			Sentences Spelling	21 .15	2. 9 -0 .6	MR VO	.10 32	1.4 5.2	
			Mech. Abil. Per. Eff.	.23 13	3•7 0•4	Math. GPA Elect. GPA	09 ,12	0.5 0.6	
			F. Arts I Math. I Bus. I	12 .05 .11	2.0 0.6 1.3	Reading Sentences Spelling Spat. Reas. Mech. Abil. Per. Eff.	.17 37 .21 11 .28 15	-0.5 5.2 -0.8 -0.1 4.5 0.4	
						F. Arts I For. L. I Bus. I	15 .11 .10	2.4 -0.4 1.2	

Criterion 22.

Survey 24-A. How useful is your community college course work in preparing you for your current employment? Pick the best answer for you.

0 = Very useful

1 = Fairly useful

2 = Not useful

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WPC			CGP (.14)		WPC + CG	WPC + CGP (.14)			
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²		
$R_c^2 <$.10		Soc. S. GPA	.16	2.5	MR	12	-0.2		
J			Mech. Abil.	.12	1.8	SA	.10	1.0		
			Biol. I	13	1.4	Soc. S. GPA	.14	2.3		
			Engl. I	.18	1.8	Mech. Abil.	.14	2.1		
			F. Arts I	.12	0.3	Biol. I	12	1.3		
			Secre. I Music I	20 25	4•7 3•9	Engl. I	.17	1.7		
			MUDIC I	-• -	7•9	F. Arts I	.10	0.3		
						Secre. I	22	5.1		
•						Music I	25	3. 9		

Criterion 23.

- Survey 24-B. How useful is your community college course work in preparing you for your current employment? Pick the best answer for you.
 - 0 = I am not employed but feel my courses will be useful for future employment
 - l = I am not employed and feel my community college courses are
 of no use in preparing me for a job

WPC		CG	P		WPC + CGP (.11)		
Predictor β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²
$R_c^2 < .10$		R _c ² <	: .10		EU RC SA RS FR	25 .26 15 .09 16	1.6 3.3 2.4 1.2 2.0
		,			Math. GPA	.26	2.8
	,				Spat. Reas. Per. Eff.	21 .15	3.3 0.7
					Secre. I	19	3.1

Criterion 24.

- Survey 25-0. Which one of the following four philosophies best expresses your own attitude towards higher education? Select only one.
 - O = (A) Of most importance are serious involvement in courses and the pursuit of knowledge for its own sake.
 - (B) Besides occupational training or a liberal education, an important part of school is life outside the classroom. Extra-curricular activities, friendships, and school traditions are also important to higher education.
 - (C) Education should be a search for basic values and meaning in life. One should be involved with ideas and art forms in school and out, and be concerned with one's personal identity.
 - 1 = Basically education should involve commitment to a particular
 field of study and training for an occupation.

WPC		CGP (.19)		WPC + CG	P (.22))
Predictor β R _c ² < .10	%s ²	Predictor Math. GPA Vocabulary Sentences Mathematics Mech. Abil. Per. Eff. Engl. I Music I Engin. I Bus. I	β •14 •11 ••15 •10 •38 ••34 ••13 ••14 ••10	%s ² 1.3 0.2 1.1 1.3 7.8 3.1 3.6 -0.6 0.2	Predictor MR VO FR Math. GPA Sentences Mathematics Mech. Abil. Per. Eff. Engl. I Music I Engin. I Bus. I	β •11 •21 •15 •13 •16 •13 •35 •29 •17 •15 •17	%S ² 2.4 1.0 0.3 1.1 1.2 1.6 7.6 4.1 3.7 0.2

Criterion 25.

- Survey 25-3. Which one of the following four philosophies best expresses your own attitude towards higher education?
 - O = (A) Basically education should involve commitment to a particular field of study and training for an occupation.
 - (B) Of most importance are serious involvement in courses and the pursuit of knowledge for its own sake.
 - (C) Besides occupational training or a liberal education an important part of school is life outside the classroom. Extracurricular activities, friendships, and school traditions are also important to higher education.
 - 1 = Education should be a search for basic values and meaning
 in life. One should be involved with ideas and art forms
 both in school and out, and be concerned with one's personal
 identity.

WPC			CGP (.12)	WPC + CGP (.1			
Predictor	E,	%s ²	Predictor	β	%s ²	Predictor	β	%5 ²
•	< .10		Soc. S. GPA Vocabulary Sentences Spelling Mech. Abil. Per. Eff. Engl. I Math. I Music I Bus. I	13 10 .20 12 25 .24 .11 10 .09 11	0.8 0.2 1.6 0.1 3.9 1.7 1.8 1.8 1.4	SA RS FR Soc. S. GPA Reading Vocabulary Sentences Mech. Abil. Per. Eff.	.04 08 .14 16 12 08 .17 21 .20	0.1 0.4 0.6 0.9 0.3 0.2 1.4
			Dus I	- 		Engl. I Math. I Music I Bus. I	.13 16 .10 11	2.2 2.7 1.4 1.1

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Criterion 26.

- Survey 27-0. Pick the one best description of the atmosphere at your community college.
 - O = (A) up-to-date (B) relaxed (C) practical, business-like (D) helpful (E) colorful (F) realistic (G) intellectual
 - (H) competitive (I) optimistic

l = warm, friendly

WPC			CGP (.11)		WPC + CGP	(.14)	_	
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%S ²	
$R_c^2 <$.10		F For. L. GPA Math. GPA	.15 16	0.7 1.3	EU SP MR	13 06 15		
				Reading Vocabulary	•29 ••43 •09	-0.5 7.7 0.9	For. L. GPA Math. GPA	.21	1.0
			F. Arts I Soc. S. I Secre. I	.14 .07	1.6 1.0	Reading Vocabulary	•34 ••38	-0.6 6.7	
						F. Arts I Math. I Soc. S. I Socre. I	.09 .11 .12		

Criterion 27.

- Survey 27-2. Pick the one best description of the atmosphere at your community college.
 - O = (A) warm, friendly (B) up-to-date (C) practical, business-like
 - (D) helpful (E) colorful (F) realistic (G) intellectual
 - (H) competitive (I) optimistic
 - l = relaxed

ERIC

WPC			CGP			WPC + CGP (.14)		
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²
R _c ² <	.10		$R_c^2 <$.10		EU SP MR RS	.10 .10 .08 .09	2.2 1.7 0.7 1.5
						For. L. GPA Math. GPA Soc. S. GPA	28 .12 .10	1.1 1.0 1.2
	·					Vocabulary Spelling Spat. Reas.	.31 13 08	8.7 -1.5 -0.4
•						F. Arts I Math. I Soc. S. I	07 12 09	0.3 1.2 0.2

Criterion 28.

- Survey 27-3. Pick the one best description of the atmosphere at your community college.
 - O = (A) warm, friendly (B) up-to-date (C) relaxed (D) helpful (E) colorful (F) realistic (G) intellectual (H) competitive (I) optimistic
 - l = practical, business-like

WPC	;		CGF)		WPC + CG	P (.10)	
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²
R _c ² <	.10		R _c ² <	.10		SA RS DS FR MA	.10 13 15 12 .13	0.6 1.8 1.5 1.4 0.2
						For. L. GPA	.15	0.6
						Reading Sentences Mathematics Spat. Reas. Mech. Abil. Per. Eff.	27 .26 16 .09 .17	2.8 0.4 1.1 0.5 1.3 0.6
						Engin. I	.09	1.0

Criterion 29.

- Survey 28-5. What is the primary focus of your father's occupation? Select only one.
 - O = (A) service (B) business contact (C) organization (D) technology (E) outdoor (F) general cultural (G) arts and entertainment

1 = sciences

WPC			CGP (10)		WPC + CG	WPC + CGP (.11)			
WPC	ن	_	COT (• 10)	_	1120 000	- (•		
Predictor	β	%s ²	Predictor	β	%5 ²	Predictor	β	%s ²		
$R_c^2 <$.10		Engl. GPA	51	3.8	vo	•14	2.3		
C			For. L. GPA	.16	0.6	FR	.10	0.9		
			Soc. S. GPA	.26	0.9	Engl. GPA	52	4.0		
			Reading	.21	3.0	For. L. GPA	.14	0.6		
			Vocabulary	.11	1.6	Soc. S. GPA	.26	0.9		
			Spat. Reas.	14	0.8	Reading	.25	3.6		
			Per. Eff.	14	0.9	Spelling	08	-0.1		
			Engin. I	07	0.5	Spat. Reas.	14	0.8		
			H. Ec. I	. 08	0.5	Per. Eff.	11	0.7		
						P. Sci. I	09	0.4		
						H. Ec. I	.09	0.6		

Criterion 30.

- Survey 29-1. Which is the primary focus of your choice of career?
 - O = (A) service (B) organization (C) technology (D) outdoor (E) sciences (F) general cultural (G) arts and entertainment
 - l = business contact

WPC			CGP WPC + CGP (.12)					
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²
$R_c^2 < \epsilon$.10		$R_c^2 <$.10		EU MR SA RS VO DS	15 .17 13 12 .16 07	2.2 0.1 1.8 1.1 -1.5 1.1
						For. L. GPA N. Sci. GPA Soc. S. GPA	.27 .11 28	0.6 -0.7 4.4
						Reading Vocabulary Mathematics Per. Eff.	21 .13 11 .11	3.7 -1.3 1.7 0.0
						Engl. I Secre. I For. L. I Music I	.07 .15 18 .07	-0.1 1.6 2.0 0.3

Criterion 31.

- Survey 29-2. Which is the primary focus of your choice of career?
 - O = (A) service (B) business contact (C) technology (D) outdoor (E) sciences (F) general cultural (G) arts and entertainment
 - l = organization

ERIC

WPC			CGP (.14)		WPC + CG		
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β	%S ²
$R_c^2 <$.10		Engl. GPA Soc. S. GPA Elect. GPA	19 .16 11	3.3 -1.9 1.3	RC SA FR	.17 .15 .04	0.2 1.7 0.2
			Mathematics Spat. Reas.	.06 .08	0.1 0.6	Engl. GPA Elect. GPA	12 07	2.1 0.9
			Soc. S. I Secre. I	13 .11	2.0	Sentences Mech. Reas.	09 .10	1.0
			P. Sci. I For. L. I Bus. I	10 16 .27	0.6 2.6 6.6	Soc. S. I Secre. I P. Sci. I For. L. I	10 .13 12 12	0.9 2.5 0.7 2.0
					•	Music I Bus. I	09 .28	1.1

Criterion 32.

Survey 29-3. Which is the primary focus of your choice of career?

- O = (A) service (B) business contact (C) organization (D) outdoor (E) sciences (F) general cultural (G) arts and entertainment
- 1 = technology

WPC (.13)		CGP (.32)		WCP + CG		
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β	%s ²
MR SA RS VO QJ FR MA For. L. GPA	.22 08 .13 16 .15 15 .19	6.3 -0.8 1.1 0.5 3.0 -0.0 3.8 1.1	Vocabulary Sentences Mathematics Spat. Reas. Mech. Abil. Per. Eff. Biol. I Engl. I For. L. I Music I Engin. I Bus. I	12 10 .35 .09 .29 28 19 19 .21 13 .12	0.3 0.6 10.3 2.3 7.5 2.0 2.4 5.0 -2.2 2.7 3.1 0.2	SP MR RS FR Vocabulary Sentences Mathematics Spat. Reas. Mech. Abil. Per. Eff. Biol. I Engl. I For. L. I Music I Engin. I	.17 .08 .10 17 14 .38 .11 .30 29 19 19 19	-0.5 2.4 0.9 0.0 0.3 0.8 1.2 2.9 2.5 5.1 -2.7 2.4

Criterion 33.

Survey 29-4. Which is the primary focus of your choice of career?

- O = (A) service (B) business contact (C) organization (D) technology (E) sciences (F) general cultural

 - (G) arts and entertainment

1 = outdoor

WPC:	CGP (.11)		WPC + CG	WPC + CGP (.13)			
WPC Predictor β R _c ² < .10	%s ²	CGP (Predictor Elect. GPA Reading Vocabulary Spat. Reas. Mech. Abil. Per. Eff.	β 09 .19 15 17 .38 26	%S ² 1.0 0.2 0.8 0.4 6.3 2.3	Predictor AM VO Soc. S. GPA Elect. GPA Reading Spat. Reas.	β •17 ••14 ••08 ••07 •16 ••22	%S ² 0.8 1.2 0.9 0.7 0.2 0.5	
		Biol. I	.14	2.1	Mech. Abil. Per. Eff.	•37 ••27	6.2 2.4	
	•				Biol. I	.15	2.2	

Criterion 34.

Survey 29-5. Which is the primary focus of your choice of career?

- O = (A) service (B) business contact (C) organization (D) technology (E) outdoor (F) general cultural (G) arts and entertainment
- l = sciences

WPC			CGP (.14)		WPC + CGI	ら (・エン)	_
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β	%s ²
$R_c^2 <$.10		For. L. GPA Soc. S. GPA Biol. I	.22 14 .21	4.1 -0.8 5.9	EU RS QJ	.10 .08 09	1.6 0.9 -0.8
			Math. I Soc. S. I	.09 09	1.7	For. L. GPA Soc. S. GPA	.19 14	3.6 -0.8
			P. Sci. I For. L. I Bus. I	.14 .11 10	3.3 1.5 0.5	Biol, I F. Arts I Math. I	.20 10 .12	5.7 -0.0 2.2
						Soc. S. I P. Sci. I	11 .14	0.1 3.5
						For. L. I Music I Bus. I	.10 .07 09	1.3 0.8 0.4

Criterion 35.

Survey 29-6. Which is the primary focus of your choice of career?

- O = (A) service (B) business contact (C) organization (D) technology (E) outdoor (F) sciences (G) arts and entertainment
- l = general cultural

WPO	3		CGP (.16)		WPC + CG	P (.19)	-
Predictor	β	%5 ²	Predictor	β	%s ²	Predictor	β	%S ²
$R_c^2 <$.10		Soc. S. GPA Elect. GPA	.19 09	3.4 -0.0	EU SP	15 .10	-0.4 1.2
			Mathematics Mech. Abil. Per. Eff.	20 20 .20	3,1 3,3 1,4	RC MR SA VO	10 06 .07 12	1.3 -0.4 -0.4
			Engl. I F. Arts I Soc. S. I Secre. I Engin. I	.07 .07 .14 11	1.7 0.7 2.8 0.3 1.6	FR Engl. GPA Soc. S. GPA Elect. GPA	.07 .09 .18 12	-0.1 1.6 3.2 -0.0
			mgm.		2.0	Reading Mathematics Mech. Abil. Per. Eff.	.20 23 21 .15	1
						Engl. I Soc. S. I Secre. I P. Sci. I Bus. I	.12 .16 11 07 07	2.8 3.4 0.3 0.7 0.3

Criterion . 36 (through 40 are reasons for satisfaction)

Survey 33. I needed better grades than I could get at a four-year school.

0 = false

l = true

WPC (.14)		CGP (.14)			WPC + CG	P (.17	
Predictor	β	%S ²	Predictor	β	%S ²	Predictor	β	%s ²
RC MA N. Sci. GPA	15 14 12	4.2 4.2 3.7	For. L. GPA N. Sci. GPA Elect. GPA	10 10	3.0 3.0 2.3	RC AM MA	13 .16 24	3.6 -2.9 6.9
Elect. GPA	11	2.7	Reading Mathematics Mech. Abil.	17 08 .12	4.0 1.8 0.3	N. Sci. GPA Elect. GPA	10 12	3.1 2.9
			Biol. I F. Arts I	07	0.9	Reading Mech. Abil.	14 .12	3.4 0.3
			Secre. I Bus. I	.1C 15	(°.3 1.1	Biol I F. Arts I Bus. I	06 .10 10	0.9 0.5 0.7

Criterion 37.

Survey 42. The courses at community college help one decide what to do: attend a four-year school or obtain technical training.

0 = false

1 = true

WPC			CGP (.10)			WPC + CGP (.10)			
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%S ²	
$R_a^2 <$.10		Math GPA	17	2.6	VO	10	1.7	
C			N. Sci. GPA Soc. S. GPA	.21 24	-1.7 5.3	Math. GPA N. Sci. GPA	16 .22	2.5 -1.8	
			Vocabulary	08	1.1	Soc. S. GPA	24	5.2	
			F. Arts I Math I Secre. I Music I	10 .10 .14 .13	0.3 0.7 2.3 1.2	F. Arts I Math. I Secre. I Music I	10 .10 .14 .14	0.3 0.7 2.2 1.2	

Criterion 38.

Survey 45. I liked it because it was inexpensive.

0 = false

WPC			CGP (.10)			WPC + CGP (.10)			
Predictor	β	%S ²	Predictor	β	%S ²	Predictor	β	%s ²	
$R_c^2 < .$	10		Math. GPA	.11	2.1	Math. GPA	.11	2.1	
C			Reading Spat. Reas.	.26 13	5.6 -0.4	Reading Spat. Reas.	.26 13	5.6 -0.4	
			Engl. I F. Arts I Secre. I P. Sci. I	14 10 .13 .15	0.8 0.3 0.6 1.9	Engl. I F. Arts I Secre. I P. Sci. I	14 10 .13 .15	0.8 0.3 0.6 1.9	
			Music I Bus. I	.12 12	1.0 0.3	Music I Bus. I	.12	1.0	

Criterion 39.

Survey 46. It taught me to grow up and made me learn what life is all about.

0 = false

1 = true

WPC	CGP			WPC + CGP (.10)			
Predictor	3 %s ²	Predictor	β	%S ²	Predictor	β	%s ²
$R_c^2 < .10$	<u> </u>	$R_c^2 <$.10		MR RS	11 12	1.7 1.5
					Soc. S. GPA Elect. GPA	09 .10	0.5 0.6
					Reading Sentences Mathematics	30 .29 10	4.9 0.2 1.5
					Secre. I P. Sci. I Bus. I	.16 .14 18	2.1 -0.7 0.9

Criterion 40.

Survey 47. Having gone to community college makes it a lot easier to get a job.

0 = false

WPC (.10)			CGP (.12)			WPC + CGP (.15)		
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β	%s ²
MR AM VO	08 .17 23	0.8 -0.4 5.4	Soc. S. GPA Elect. GPA	16 .14	1.8	SP AM VO	10 .12 22	0.8 -0.3 5.2
FR MA	.15	0.4 2.5	Vocabulary Sentences	13 .13	2.5 0.7 1.5	FR Soc. S. GPA	.13	0.4
Soc. S. GPA	16	1.8	Mathematics Spat. Reas.	11	-0.6	Elect. GPA	.13	0.9
Elect. GPA	.17	1.1	Mech. Abil.	13	2.2	Sentences	.17	-0.8 1.9
			Math. I Soc. S. I	.11 13	0.2 2.4	Mathematics Mech. Abil.	14 12	2.0
			Secre. I Music I Engin. I	.17 08 09	3.7 0.5 1.0	Soc. S. I Secre. I Engin. I	12 .14 08	2.3 3.2 0.9

Criterion 41 (through 46 are reasons for dissatisfaction)

Survey 53. I will not be able to transfer many credits to a four-year school.

0 = false

l = true

WPC			CGP			WPC + CGP (.10)			
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²	
$R_c^2 <$,,		.10		SA AM RS FR	.09 .09 .17 13	0.7 0.5 2.3 0.7	
						Soc. S. GPA Elect. GPA	21 .16	2.8 0.5	
						Reading Mathematics	11 .10	1.1	
						Biol. I Soc. S. I Music I	10 07 11	1.4 1.1 1.3	

Criterion 42.

Survey 56. There was too much emphasis on daily assignments rather than general knowledge.

0 = false

WPC			CGP (.10)			WPC + CGP (.10)		
Predictor	, β	%s ²	Predictor	β	%5 ²	Predictor	β	%s ²
$R^2 <$	-	,	Math. GPA	.18	1.2	FR	.08	0.8
rc \	• 10		Soc. S. GPA	15	0.6	Math. GPA	.18	1.2
			Reading	15	0.6	Soc. S. GPA	16	0.7
			Vocabulary	•39	3.6 1.6	Reading	15	0.6
			Sentences	26 .08	0.5	Vocabulary	• 40	3.7 1.4
			Mathematics Spat. Reas.	17	0.8	Sentences Spat. Reas.	24 16	0.8
			Per. Eff.	.16	1.5	Per. Eff.	.16	1.5
			Biol. I	06	0.4	Biol. I	06	0.4
			Secre. I	.11	0.3	Secre. I	.10	0.3
			H. Ec. I	15	1.5	H. Ec. I	15	1.5

Criterion 43.

Survey 59. There was practically no social life.

0 = false

1 = true

WPC			CGP			WPC + CGP (.11)			
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²	
R_c^2 <	.10		$R_c^2 <$.10		EU SA AM	.21 .13 12	2.0 1.1 -0.1	
						N. Sci. GPA Soc. S. GPA	22 .24	1.2 1.9	
						Vocabulary Sentences Per. Eff.	.13 20 .09	1.3 0.1 0.7	
						F. Arts I Math. I Secre. I For. L. I Music I H. Ec. I Bus. I	08 13 07 13 .09 15	0.8 1.3 1.0 1.4 -0.1 2.5	

Criterion 44.

Survey 63. It was too much like high school.

0 = false

WFC			CGP			WPC + CGP (.10)			
Predictor	β	%S ²	Predictor	β	%s ²	Predictor	β	%s ²	
$R_c^2 <$.10		R_c^2 <	.10		SA AM DS	09 .12 .09	0.3 0.9 0.5	
						Math. GPA	09	0.2	
						Sentences Mech. Abil. Per. Eff.	09 18 .32	-0.0 0.7 5.6	
						Biol. I Engl. I P. Sci. I For. L. I Bus. I	.12 .16 15 14	0.3 1.9 1.5 0.3	

Criterion 45.

Survey 66. I thought it unnecessary to have to take so many unrelated subjects (art, music, etc.).

0 = false

l = true

WPC			CGP (.10)			WPC + CGP (.14)			
Predictor	β	%s ²	Predictor	β	%S ²	Predictor	β	%S ²	
$R_c^2 <$.10		For. L. GPA Math. GPA Reading	14 .10	2.6 -0.3 1.7	MR AM MA	14 .26 18	-0.0 0.8 1.2	
			Vocabulary Spat. Reas.	13 .10	2.4 0.8	For. L. GPA Math. GPA	15 .11	2.8 -0.3	
			Mech. Abil. Per. Eff.	.15 07	1.9 0.4	Reading Vocabula r y	10 15	1.6 2.7	
			Engl. I	13	2.8	Spat. Reas. Mech. Abil. Per. Eff.	.15 .24 14	1.1 3.0 0.8	
•						Engl. I	13	2.8	

Criterion 46.

Survey 68. I disliked the nonacademic attitude of the student body.

0 = false

WPC			CGP.			WPC + CGP (.12)		
Predictor	β	%s ²	Predictor	β	%s ²	Predictor	β	%s ²
$R_c^2 <$.10		R _c ² <	.10		EU SA RS VO FR	21 .13 .08 .21 .13	-1.3 1.5 1.2 4.5 1.6
						N. Sci. GPA	16	0.5
						Spelling	.06	0.5
						Engl. I F. Arts I Math. I P. Sci. I For. L. I	.16 07 12 .08 .11	3.7 -0.3 0.3 0.8 1.7

Criterion 47

First Year Cumulative GPA

WPC (.36)			CGP (WPC + CGP (.46)				
Predictor	β	%S ²	Predictor	β	%5 ²	Predictor	β	%S ²
SP RC MR	.07 .07 07	2.6 2.4 -0.3	For. L. GPA N. Sci. GPA Soc. S. GPA	.05 .14 .13	2.1 7.2 6.9	SP MR RS	.04 .05 03	1.5 0.2 -0.2
RS VO QJ	07 .07 .15	-0.5 2.3 5.2	Elect. GPA Reading Vocabulary	.15 .14 .05	6.1 5.5 1.8	N. Sci. GPA Soc. S. GPA Elect. GPA	.14 .15 .14	7.2 8.0 6.0
For. L. GPA N. Sci. GPA Soc. S. GPA Elect. GPA	.11 .14 .14 .15	4.9 7.2 7.3 6.1	Mathematics Mech. Abil. Per. Eff. F. Arts I	.19 38 .30	7.3 2.3 8.6	Reading Mathematics Mech. Abil. Per. Eff.	.16 .19 40 .31	6.3 7.4 2.4 9.1
			H. Ec. I Bus. I	08 .08	-0.7 0.3	F. Arts I H. Ec. I Bus. I	06 07 .08	-0.1 -0.6 0.3

Comparison of predictor batteries. Overall the CGP battery must be judged superior to the WPC battery in predicting nonintellective college criteria as well as first year cumulative GFA. Not only were the CGP tests able to predict more criteria, but in most instances, the multiple correlations with the batteries combined were only slightly higher than those obtained using HS GFA's and the CGP battery alone. It should be noted, however, that deletion of HS grades could considerably reduce the predictive effectiveness of both batteries with respect to first year community college grades. While the correlations with first year GPA and HS grades ranged .42 for Electives to .52 for Social Science GFA, r's among WFC tests ranged from .04 for Mechanical Reasoning to .39 for English Usage and r's among CGP intellective tests from -.06 for Mechanical Ability to .41 for Sentences. Among CGP interest measures, correlations with GFA went from -.10 for Engineering to .13 for English Interest (Table 4).

To what did the CGP battery owe its superiority? In the case of criterion 47, first-year cumulative GFA (Table 5), it was due primarily to Perceptual Efficiency, which test has no parallel in the WFC battery, and, secondarily, to better Reading and Mathematics tests. With respect to the nonintellective criteria, however, it was the CGP interest measures which contributed the additional predictive variance. Choice of major (criteria 2-8) is a good example where all interests were important but especially that interest test which paralleled major area. Business majors had very high Business Interest, engineers high Engineering Interest, etc. Again, with respect to the focus of one's choice of occupation (criteria 30-35), there was considerable consistency: those choosing organizational careers had

high Business Interest, those choosing technological careers had low interest in the humanities and high interest in Engineering, and those choosing scientific careers showed high Biological and Physical Science Interests.

Certain intellective measures also contributed to the CGP battery's greater predictive utility: Mechanical Ability, Vocabulary, and Perceptual Efficiency. For example, community colleges were described as requiring too many unrelated subjects such as art and music by students with low Vocabulary and high Mechanical Ability scores. Dissatisfaction with community college as "too much like high school" was characteristic of students with high Perceptual 1 Efficiency scores.

These results based on prediction extend the earlier finding that CGP Perceptual Efficiency, Mechanical Ability, and interest measures were all unique with respect to the WPC battery (Greenmun, Lunneborg and Lunneborg, 1968). Not only are these measures unique but it is now clear that they possess significant predictive potential as well.

One interesting aspect to the CGP battery was the relationship between Perceptual Efficiency and Mechanical Ability in predicting several criteria. Whenever either had once been selected the other was next selected. The high variance contribution of one or both of these subtests compared to their original validities with the criteria would indicate that these two measures act as suppressor variables with respect to each other. The factorial independence of these subtests from the remainder of the CGP battery (Lunneborg, Greenmun, and Lunneborg, 1969) and their heavy contribution to prediction strongly favor their representation in future versions of the battery.

Comparison of nonintellective criteria. It was much easier to predict educational and vocational orientation and plans (Table 6) than either nonintellective first year community college experiences (Table 7) or perceived college characteristics (Table 8). Especially disappointing was the lack of predictability for a 40-item Community College Satisfaction Scale (Survey items 31-50 scored true, 51-70 scored false). The Satisfaction Scale mean was 25.8, the SD was 5.6, so its unpredictability was not due to any restriction in range.

Although the presence of interest measures insured prediction of major area and vocational choice, these measures were not sufficient to account for substantial variance in the most important set of criteria, first year experiences. The latter criteria were intended to complement traditional GPA in indicating the effects of higher education. The prediction of such nonintellective criteria obviously depends upon the addition of even more and varied nonintellective variables.

As Tables 6-8 indicate these nonintellective Survey criteria were uncorrelated with first year grades. They were also uncorrelated with one another except where criteria were experimentally related (mutually exclusive alternatives to same item) or where identical information was solicited, e.g., major area of study. The implied factorial complexity of these criteria provides another argument for an equally wide range of diverse predictors.

Predictability of Educational and Vocational Orientation and Plans

$$R_c^2 < .10$$

Two major areas (nursing and undecided)

Associate of arts degree planned

Transfer in second year planned

Type of transfer school

Collegiate orientation towards

education

Academic orientation towards

education

Two career interest areas

(service and arts & enter-

tainment)

$$R_c^2 \ge .10$$

Amount of college work planned (.16)

Seven major areas: business (-.08),

education (-.15), engineering (.00),

humanities (.04), vocational (.03),

social science (.15), natural

science (.14)

Complete vocational program planned (-.13)

Vocational orientation towards

education (-.01)

Nonconformist orientation towards

education (-.05)

Six career interest areas: business

contact (-.05), organization (-.00)

technology (-.01), outdoors (-.03)

science (.05), general cultural (.06)



Note.--Correlations (\underline{r}) with intellective criterion, first-year GPA, appear after the predictable nonintellective criteria in parentheses.

Table 7

Predictability of First Year Community College Experiences

$$R_c^2 < .10$$

Decision for less education Decision for more education Change of major Definite major in third qtr Hours credit in third qtr Hours credit prior to third qtr Satisfaction with progress Career plans changed by teachers Career plans changed by good courses Career plans changed by bad courses Career plans changed by test results Career plans changed by working Concurrent work in career field Change of career plans Definite career plans in third qtr Satisfaction Scale (40 true-false items)

$$R_c^2 \ge .10$$

Vocational-technical study (.07)

Business study (-.06)

Academic study (.21)

Enrollment in third qtr (-.07)

Decision to transfer (-.10)

Amount of effort at studying (.26)

Satisfaction with college choice (.00)

Amount of concurrent employment (-.04)

Utility of courses for current

employment (-.08)

Utility of courses for future

employment (.03)

Table 8

Predictability of Community College Characteristics

$$R_{c}^{2} < .10$$

Adequacy of college

Seven negative characteristics of college

Nine "best" descriptions of college

Perceived educational orientation

of college

Seven descriptions of college atmosphere

Twenty-nine sources of satisfaction and dissatisfaction

$$R_c^2 \geq .10$$

Three negative characteristics of college: no chance for individuality (-.04), students treated like numbers (.03), expressing ideals in action discouraged (-.03)

Three descriptions of college atmosphere:
warm (-.07), relaxed (.07), practical
(.07)

Eleven sources of satisfaction--could get better grades (-.29), helped decide what to do (-.13), inexpensive (.05), helped to grow up (-.10), easier to get a job (-.05); and dissatisfaction--will lose credits when transfer (-.14), too many assignments (-.05), no social life (.08), like high school (-.02), too many requirements (-.11), nonacademic student body (.09)

Discussion

This investigation is one in a progression of educational prediction studies in the community college setting which started with a straightforward estimate of traditional academic course work from a traditional aptitude battery (Cory, 1968). It was established that English, mathematics, biology, etc., are just as easily predicted at 2-year schools as at 4-year schools using identical traditional aptitude and achievement measures. Next, it was found this same traditional battery had appreciable predictive power for nontraditional course work such as auto mechanics, data processing, and secretarial studies (Lunneborg & Lunneborg, in press). This third study in the series has concentrated on adding nonintellective elements to both predictors and criteria. Interest measures were combined with high school grades and aptitude scores to predict not only grades but an array of selfreported plans and first-year college experiences. These nonintellective criteria emphasized particularly the decision-making aspect to community college study contrasting with the emphasis on talent, creativity, and extra-curricular achievement in other studies (Richards et al., 1967).

Nontraditional prediction of nontraditional criteria can take on its greatest significance in the community college setting. While it is true that academic achievement is as easily estimated at two-year as at four-year schools from traditional measures, such academic achievement is only one of the many goals community colleges espouse. Their objectives, those reiterated in catalogs, brochures, etc., are multifarious and flexible, accepting all levels of student potentiality and interest, encouraging personal development anc exploration, and deemphasizing traditional evaluations of performance. It is therefore of great importance to learn more about predicting the kinds

of nontraditional criteria suggested by this orientation towards higher education. For this reason instead of scales of "leadership achievement" and "scientific achievement," the nonintellective criteria from these community college students stressed personal reaction and adjustment to school, satisfaction with and attitudes toward higher education.

To summarize, these nonintellective community college criteria were found unrelated to an intellective criterion (Tables 6-8) and unrelated to traditional intellective predictors (Table 4), consistent with many previous studies of nonintellective criteria. Although Richards et al. (1967) reported that many of their nonintellective criteria (various "accomplishment" checklists) were moderately interrelated, the nonintellective criteria in the present study were highly unrelated to one another.

The most important result was finding that some of these experimental, nontraditional criteria could be predicted to a useful degree. Where there was an obvious link between predictors and criteria, as between the CGP interest indices and choice of major and occupation, prediction was good. Thus, it can be hoped that if new nonintellective predictors are developed specifically akin to Community College Survey criteria, useful predictions would result. Certainly on the face of it, the present results are disappointing. First year college experiences were largely unpredictable but it is hoped that lack of predictability is not due to unreliability of these items but rather to the simple fact that they were not matched in the predictor batteries.

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APPENDIX A

Washington Pre-College Testing Program
University of Washington
Seattle, Washington 98105

1968 COMMUNITY COLLEGE SURVEY

Because you are studying at one of Washington's community colleges we are asking for your cooperation. We would very much appreciate your answering the following questions regarding your education and employment. Our community colleges are concerned about better meeting the needs of students and believe it is important to know more about students' school experiences than simply the grades they make. By expressing the way you feel about your education up to now and your hopes for the future you will be helping Washington's community colleges change and expand for the better.

Print your full name, sex, school you are attending, and date of birth at the top of the answer sheet. In the space above date of birth give your permanent home address including town and state. Indicate all your answers on the answer sheet by making a heavy black mark corresponding to the number of the answer which best fits you. Mark only one answer for each question. Multiple responses to any question cannot be counted and simply invalidate the item. Please answer every item by picking the alternative which fits your situation best. Return only the answer sheet in the addressed, stamped envelope enclosed. Thank you.

Bureau of Testing Project: 0366-550. May 1968.

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How far do you plan to go in college? (0) some college courses but no degree (1) business or specialized job training in addition to college courses but no degree (2) associate degree from community college 3) R.N., teaching, or other professional diploma but no bachelor's degree (4) bachelor's degree 5) college work after bachelor's but not another degree 6) master's degree (7) law degree, doctor's degree, Ph.D., Ed.D., M.D., etc. Did you change your mind while in community college this past year about how much education you want? (0) no (1) yes, I probably will go longer (2) yes, I probably will not go to college as long as I previously planned 3. What major area are you studying in college? (Pick the one that fits your studies best. Use 8 if undecided.) (0) business (1) education (2) engineering (3) humanities (language, fine arts, philosophy (4) vocational or technical specialty, job training (5) social science (history, government, psychology) natural science and mathematics (7) nursing (8) I am undecided and have no major. Has your choice of a major changed this past year? (0) no, I was undecided (1) no, I still intend to study the same major and still am (2) yes, I was undecided but now I know what my major is (3) yes, I have changed from one major to another (4) yes, I had decided on a major but now I am uncertain what it will be 5. Which is the best description of your studies this past year at community college? (Pick one only.) (0) vocational-technical (1) general (2) business (3) academic 6. Are you now enrolled in college? (0) no (1) yes, 1 to 10 hours credit (2) yes, ll or more hours credit 7. Up to the present time how many hours of college credit have you acquired? (1) between 16 and 30 hours (2) over 30 hours (0) 15 or less hours 8. Do you plan to get an associate of arts degree? (0) no (1) yes Do you plan to complete an occupational or vocational training program? 9. (0) no (1) y**e**s 10. Have you decided to transfer to another college after this school year? (1) yes, but I had decided to do it before this year (2) yes, and I made my decision to transfer during this year at community college

- 11. How satisfied are you with your studies and progress at community college? (1) very satisfied (1) fairly well satisfied (2) not too satisfied (3) very disappointed and dissatisfied How much have you applied yourself and worked at your studies this past (0) haven't applied myself at all year? (1) put forth a minimum of effort (2) studied fairly hard (3) studied very hard
- 13. How good do you feel your present community college is? (0) bad (1) just adequate (2) fairly good (3) very good
- Which one most applies to your present community college? (Remember, multiple answers cannot be counted.)
 - (0) great pressure for high grades (5) students treated like numbers in book (1) little school spirit (6) faculty not as good as they should be (2) no chance for individuality (7) students not very bright (3) not much to do except study (8) expressing ideals in action discouraged (4) athletics overemphasized (9) childish rules and regulations
- Pick the one best description of your present community college. (Multiple responses invalidate an item.)
 - (0) large enrollment and varied curriculum

(1) inexpensive to attend

(2) privately or religiously controlled

(3) emphasizes transferring and continuing one's education

(4) emphasizes a liberal arts education

(5) open-door admissions and impersonal atmosphere

(6) older school with traditions and residential student body

(7) students in technical programs

- (3) even balance of male and female students
- Which is the best description of the college where you have decided to transfer? (Only select one answer and if you are not going to transfer or are undecided, use space 9,)
 - (0) large enrollment and varied curriculum

(1) inexpensive to attend

(2) privately or religiously controlled (3) emphasizes transferring and continuing one's education

(4) emphasizes a liberal arts education

(5) open-door admissions and impersonal atmosphere (6) older school with traditions and residential student body

(7) many students in technical programs

- (8) even balance of male and female students
- (9) not going to transfer or undecided

- 17. If you had been absolutely free to choose where you went this past year, would you have picked the community college you are attending? (0) no (1) yes
- 18. Rate in terms of <u>changing your career plans</u> this past year: Discussions with faculty members
 - (0) very important (1) fairly important (2) unimportant
- 19. Rate in terms of changing your career plans this past year: Courses which helped me decide what I want to do
 - (0) very important (1) fairly important (2) unimportant
- 20. Rate in terms of changing your career plans this past year: Courses which helped me decide what I do not want to do
 - (0) very important (1) fairly important (2) unimportant
- 21. Rate in terms of changing your career plans this past year: Pre-College or vocational test results
 - (0) very important (1) fairly important (2) unimportant
- 22. Rate in terms of <u>changing your career plans</u> this past year: Work experiences during college
 - (0) very important (1) fairly important (2) unimportant
- 23. How are you currently employed? Give the one answer which fits you best.
 - (0) unemployed
 - (1) part time work of type I will probably do all my life
 - (2) part time work which will probably not be my career field (3) full time at job I expect to be my long run career field
 - (4) full time work which will probably not be my life's work
- 24. How useful is your community college course work in preparing you for your current employment? Pick the best answer for you.
 - (0) very useful
 - (1) fairly useful
 - (2) not useful
 - (3) I am not employed but feel my courses will be useful for future employment
 - (4) I am not employed and feel my community college courses are of no use in preparing me for a job

- 25. Which one of the following four philosophies best expresses your own attitude towards higher education? Select only one.
 - (0) Basically education should involve commitment to a particular field of study and training for an occupation.

(1) Of most importance are serious involvement in courses and the pursuit of knowledge for its own sake.

- (2) Besides occupational training or a liberal education, an important part of school is life outside the classroom. Extra-curricular activities, friendships, and school traditions are also important to higher education.
- (3) Education should be a search for basic values and meaning in life. One should be involved with ideas and art forms both in school and out, and be concerned with one's personal identity.
- 26. Consider the above four educational philosophies again in terms of the students around you at your current community college. Which is the most common philosophy held by students there -- 0, 1, 2, or 3?
- 27. Pick the one best description of the atmosphere at your community college.
 - (0) warm, friendly (1) up-to-date (2) relaxed (3) practical, business-like (4) helpful (5) colorful (6) realistic (7) intellectual (8) competitive (9) optimistic
- 28. What is the primary focus of your father's occupation? Select only one.
 - (0) service: attending to the needs and welfare of others through guidance, domestic, personal or protective services
 - (1) business contact: face-to-face personal persuasion to sell commodities, services, investments
 - (2) organization: managerial, ownership, or white collar job in business, industry, or government
 - (3) technology: concerned with production, maintenance, and transportation of commodities and utilities; includes engineering, communication, crafts, machine trades
 - (4) outdoor: agriculture, fishery, forestry, mining, and kindred occupations
 - (5) sciences: research in all fields, mathematicians, doctors, college teachers in science, nurses, dentists, veterinarians, weather observers, etc.
 - (6) general cultural: occupation in education, journalism, law, ministry, linguistics; includes all elementary and high school teachers
 - (7) arts and entertainment: uses special skills in creative arts, entertainment, or sports
- 29. Using the above eight categories, which is the primary focus of your choice of career? (Again pick only one response. Use 8 if undecided. For those who will primarily be housewives, select the focus of work you would do secondarily.)

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- 30. Have your career plans changed this past year while in community college? (0) no, I still am undecided on a career (1) no, I still intend to pursue the same career (2) yes, I was undecided but now I have chosen a career (3) yes, I have given up my plans for one career and chosen another (4) yes, I gave up my plans for a career and now am undecided what to do Below are a number of statements made by students who were satisfied starting college at a community college. Please indicate whether each statement is (1) true for you (or you agree with it) or(0) not true for you (or you disagree) I enjoyed the more personal atmosphere and lack of competition. 31. (1) true (0) false (1) true I preferred small classes. (O) false 32. I needed better grades than I could get at a four-year school. 33. (O) false (1) true It taught me good study habits. (0) false (1) true 34。 The instructors were more concerned than at other schools with being good 35. (0) false (1) true teachers. 36. Most of my courses will really help me on the job. (0) false (1) true It prepared me well for entrance to a four-year school. (0) false 37. Community colleges introduce a good general sampling of courses having to **38**. do with many areas of interest (0) false (1) true
- 40. I met several extraordinary (great) instructors. (1) false

I liked the close association between instructors and students.

*3*9.

(0) false

(1) true

CHECK TO MAKE SURE YOU JUST REACHED THE BOTTOM OF THE FIRST COLUMN OF THE ANSWER SHEET.

- 41. It gave me a new outlook on life. (0) false (1) true
- 42. The courses at community college help one decide what to do: attend a four-year school or obtain technical training. (0) false. (1) true
- 43. I met some good friends there (0) false (1) true
- 44. Understanding the material was emphasized more than grades. (0) false (1) true
- 45. I liked it because it was inexpensive (0) false (1) true
- 46. It taught me to grow up and made me learn what life is all about.
 (0) false (1) true
- 47. Having gone to community college makes it a lot easier to get a job. (0) false (1) true
- 48. I liked going there because it was close to home. (0) false (1) true
- 49. The instructors were well informed and could relate well. (0) false (1) true
- 50. I needed a place to adjust to further college study. (0) false (1) true

Below are a number of statements made by students who were <u>dissatisfied</u> and <u>unhappy</u> starting college at a community college. Please indicate whether each statement is (1) true for you (or you agree with it) or (0) not true for you (or you disagree)

- 51. The instructors were poor quality and class work standards too low.
 (0) false (1) true
- 52. There were no advanced courses in my field of interest. (0) false (1) true
- 53. I will not be able to transfer many credits to a four-year school (0) false (1) true
- 54. The counseling staff was poor. (0) false (1) true
- 55. There were too many cliques and select groups in the student body.
 (0) false (1) true
- 56. There was too much emphasis on daily assignments rather than general knowledge (0) false (1) true
- 57. The courses were too elementary and should have gone into greater depth.

 (0) false (1) true
- 58. My community college really lacked school spirit. (0) false (1) true

- 59. There was practically no social life. (0) false (1) true
- 60. I felt I was pushed too fast in my studies. (0) false (1) true
- 61. There was lack of real competition in some courses. (0) false (1) true
- 62. Subjects needed as prerequisites for courses in four-year schools were inadequate. (0) false (1) true
- 63. It was too much like high school. (0) false (1) true
- 64. Grades based more on memorization than on actual learning. (0) false (1) true
- 65. I only went there because I could not afford a better school. (0) false (1) true
- 66. I thought it unnecessary to have to take so many unrelated subjects (art, music, etc.). (0) false (1) true
- 67. My college tended to maintain some older instructors who could not "reach" students. (0) false (1) true
- 68. I disliked the nonacademic attitude of the student body. (0) false (1) true
- 69. Counseling and advising for students planning to transfer was inadequate.
 (0) false (1) true
- 70. My choice of courses was often not granted and I had to take courses which had no meaning for me. (0) false (1) true

MAKE SURE YOU HAVE JUST MARKED YOUR ANSWER TO ITEM 70, THE LAST ITEM ON THE ANSWER SHEET.

You have now completed the questionnaire. Please be sure you have supplied at the top of the answer sheet your permanent home address (or the <u>name</u> and address of someone who will know where you are or could forward a letter to you). We would like to keep in touch. Just return the answer sheet in the enclosed, stamped envelope. Thank you.

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